

A Commence of the Commence of
A SQUARE BUILDING
多名 医发生
1.1
The state of the s
1
Market State State of
Marin San San
1
Marine Control
* * _ * * · · · * //
2 × 10 A
- :- · · · · · · · · · ·
the second of the second
g =
the same the region

	. 110
	2.1
	****
	· 1 · · · · · · ·
	parent Armer
	the same
	5 + 1 +   2 + 1   A   1
	eta di Lagrania
	1 A 1 1
	the test
	the second
•	en proprieta de la composición de la c
	4.0
	15.
	44.
84	4 F = 1

Kinders North Bridge
A projekt meganal
20 1 1 1 1 1 1 1 1
4.4
etalik ki ili territoria
the traction of the
Harrison Contract Con
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
a right Bartmerson
T A
E was the
Maria Artes
An may like an application

in dryf dryffigin Hyghaglytridyri Carrell Marchin Geografi
Arriftfishiga Highway Sytem Agent • • Lenn Hiller Alle Geografia
eng transférie (* 1852) • Herre Mercola 1861 – Horr
A constant
4 A A A
Magnetic and the Artist
As the Mart
20 10 200
A Mariana
118 11.
e grand and east
e Tarta i talahir e
* track a

1. 4. 6	n Marahasan
12.2	
100	
A Pin 1	1.4
111	
1 0/4	
A service of	***
1 14	**
*******	44,0,30
A 200 ***	
* A **.	
• • • • •	n ** : *
14 pt 4 d	

February 27, 2003

WRITER'S DIRECT NUMBER: (202) 772-8645 INTERNET ADDRESS: JASONE@SKGE.COM

Commissioner for Patents Washington, D.C. 20231

Re:

U.S. Utility Patent Application

Appl. No. 09/972,019; Filed: October 5, 2001

Low Offset and Low Glitch Energy Charge Pump for PLL-Based

**Timing Recovery Systems** 

Inventors:

Myles H. Wakayama

Our Ref:

1875.2070002

Sir:

Transmitted herewith for appropriate action are the following documents:

Amendment and Reply under 37 C.F.R. § 1.111; and 1.

2. Return postcard.

TECHNOLOGY LENGER 2800 It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier.

In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jason D. Eisenberg

Attorney for Applicants Registration No. 43,447

JDE/kae ::ODMA MHODMA SKGF, DC1;101454;1 SKGF Rev. 2 15 02 dcw



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Myles H. Wakayama

Appl. No. 09/972,019

Filed: October 5, 2001

For:

Low Offset and Low Glitch **Energy Charge Pump for PLL-**

**Based Timing Recovery Systems** 

Confirmation No.: 3152

Art Unit: 2817

Examiner: A. Kinkead

Atty. Docket: 1875.2070002

Amendment and Reply under 37 C.F.R. § 1.111

Commissioner for Patents Washington, D.C. 20231

Sir:

In reply to the Office Action dated **December 31, 2002**, (PTO Prosecution File Wrapper Paper No. 7), Applicant submits the following Amendment and Remarks. This Amendment is provided in the following format:

- (A) A clean version of each replacement paragraph/section/claim along with clear instructions for entry;
- (B) Starting on a separate page, appropriate remarks and arguments. 37 C.F.R. § 1.111 and MPEP 714; and
- (C) Starting on a separate page, a marked-up version entitled: "Version with markings to show changes made."

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

## Amendments

Please replace pending claim 45 with the following new claim 45.

45. (Amended) A method of controlling a charge pump having two parallel current paths formed of transistors, each current path having an output node and coupled between a first current source and a second current source, said charge pump operating within a phase lock loop, the method comprising the steps of:

detecting a phase or frequency characteristic of an input signal to produce an output signal;

receiving said output signal at said charge pump and using said output signal to produce a charge pump control signal;

generating a characteristic current using one of said first current path and said second current path in response to said charge pump control signal; and controlling a value of one of said first current source and said second current source to minimize D.C. offsets resulting from parasitic capacitances of said transistors.